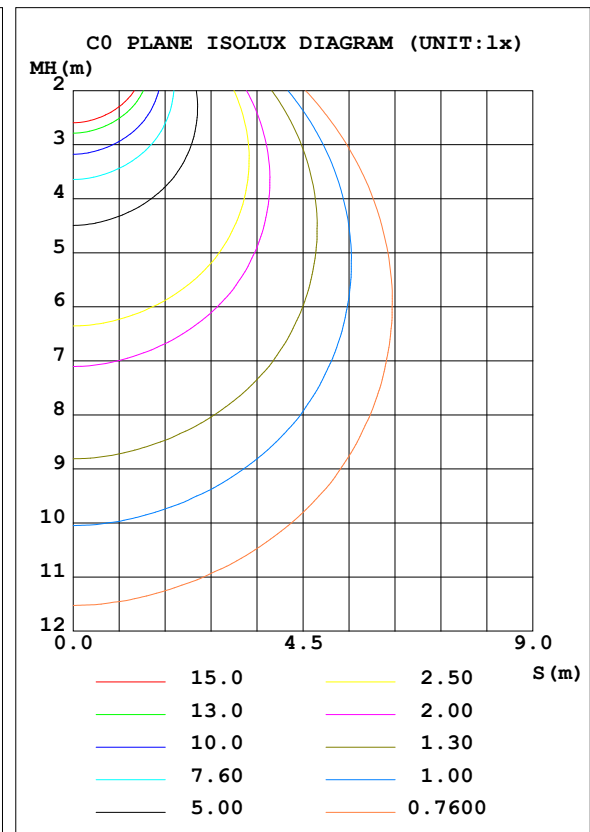
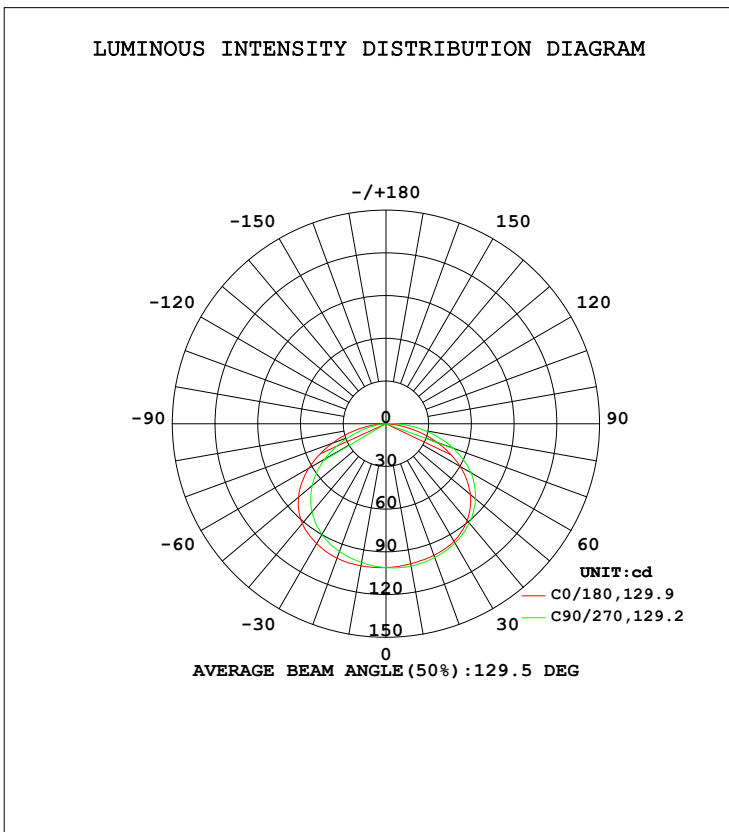


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.13 lm/W			
MODEL		I _{max} (cd)	101.6	S/MH (C0/180)	1.44
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.32
RATED VOLTAGE (V)		TOTAL FLUX (lm)	354.60	η UP, DN (C0-180)	0.3, 52.7
NOMINAL FLUX (lm)	354.602	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.1
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)		η down (%)	99.7	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.820m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
ZONAL FLUX DIAGRAM:

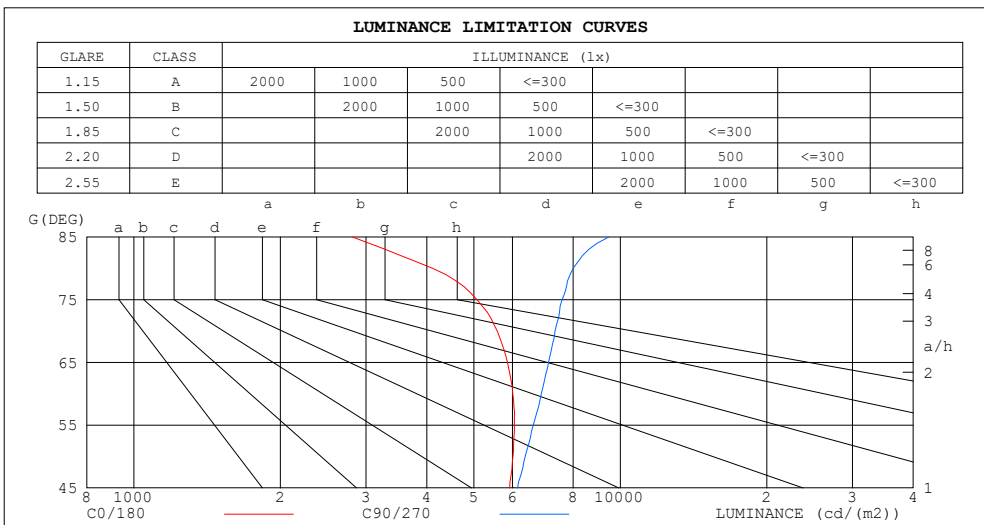
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	99.84	101.5	101.3	98.78				0- 10	9.614	9.614	2.71,2.71
20	98.33	100.1	100.5	95.57				10- 20	28.21	37.82	10.7,10.7
30	95.35	96.72	97.20	89.89				20- 30	44.81	82.64	23.3,23.3
40	88.70	91.06	91.35	80.81				30- 40	57.52	140.2	39.5,39.5
50	77.31	81.91	80.11	67.60				40- 50	64.01	204.2	57.6,57.6
60	60.10	68.78	62.62	49.75				50- 60	61.77	265.9	75,75
70	38.19	50.24	40.28	28.07				60- 70	49.49	315.4	88.9,88.9
80	14.29	27.77	17.01	8.709				70- 80	29.57	345.0	97.3,97.3
90	0	7.723	0	0				80- 90	8.718	353.7	99.7,99.7
100	0	0.2637	0	0				90-100	0.8991	354.6	100,100
110	0	0	0	0				100-110	0.0036	354.6	100,100
120	0	0	0	0				110-120	0	354.6	100,100
130	0	0	0	0				120-130	0	354.6	100,100
140	0	0	0	0				130-140	0	354.6	100,100
150	0	0	0	0				140-150	0	354.6	100,100
160	0	0	0	0				150-160	0	354.6	100,100
170	0	0	0	0				160-170	0	354.6	100,100
180	0	0	0	0				170-180	0	354.6	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2813	9473
80	4115	7995
75	5077	7592
70	5583	7344
65	5862	7115
60	6010	6878
55	6055	6624
50	6014	6372
45	5921	6150

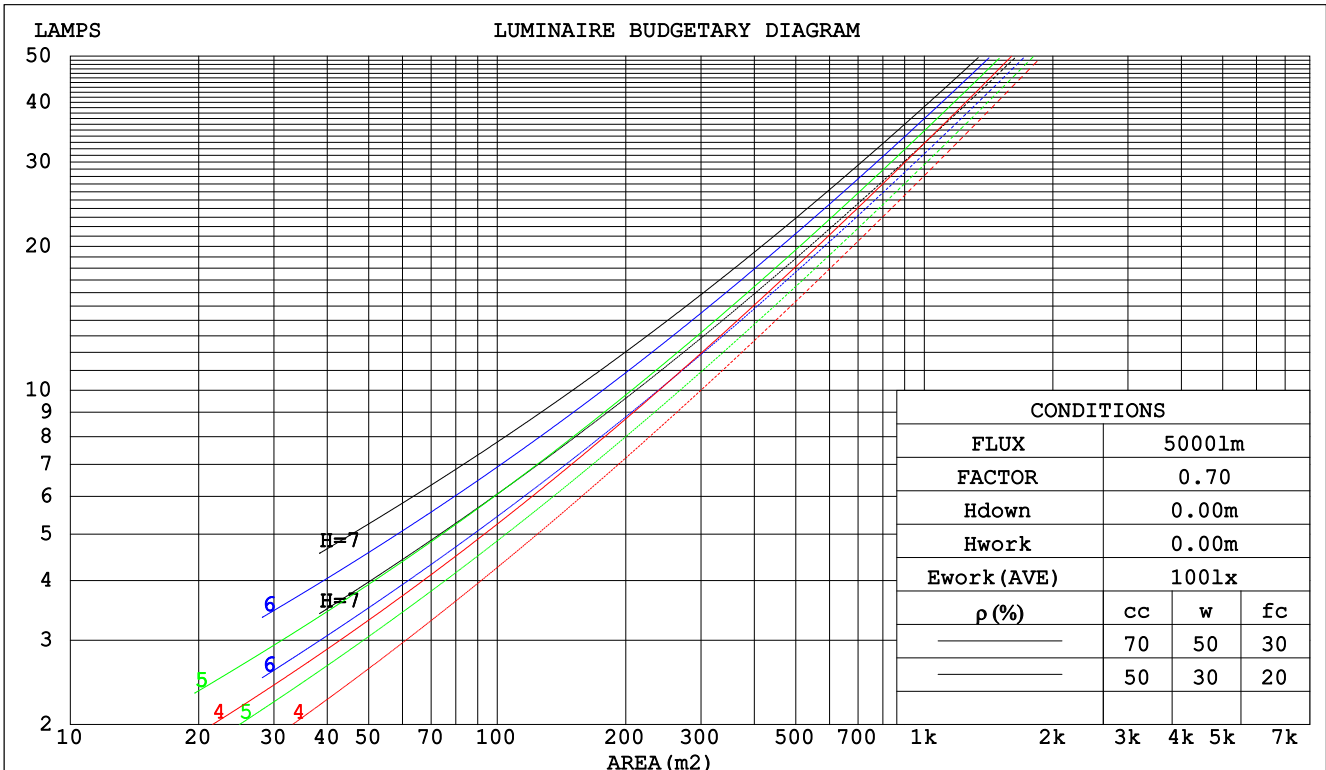
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.03	.98	.94	1.00	.96	.92	.96	.93	.89	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.81	.75	.87	.80	.74	.83	.77	.73	.80	.75	.71	.77	.73	.69	.67
3.0	.77	.69	.62	.76	.68	.61	.72	.66	.60	.70	.64	.59	.67	.62	.58	.55
4.0	.68	.59	.52	.66	.58	.51	.64	.56	.50	.61	.55	.50	.59	.54	.49	.47
5.0	.60	.51	.44	.59	.50	.44	.57	.49	.43	.55	.48	.43	.53	.47	.42	.40
6.0	.54	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.41	.37	.34
7.0	.49	.40	.33	.48	.39	.33	.46	.38	.33	.45	.38	.32	.43	.37	.32	.30
8.0	.44	.35	.29	.44	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.27
9.0	.40	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.36	.30	.26	.24
10.0	.37	.29	.24	.37	.29	.24	.36	.28	.23	.35	.28	.23	.34	.28	.23	.21



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm								
NAME: CB-RGBW			TYPE: LED Strip			WEIGHT:		
SPEC.: 19W			DIM.: 1000*12*2(MM)			SERIAL No.: 001		
MFR.: Flexfire LEDs, Inc.			SUR.: 0.02*1			Shielding Angle: 120		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.330	.188	.059	.323	.184	.059	.310	.178	.057	.297	.171	.055	.286	.166	.053	
2.0	.308	.169	.052	.302	.166	.051	.290	.161	.050	.279	.156	.049	.269	.152	.048	
3.0	.284	.151	.045	.278	.149	.045	.267	.145	.044	.257	.141	.043	.248	.138	.043	
4.0	.260	.135	.040	.255	.134	.040	.246	.130	.039	.237	.127	.038	.229	.124	.038	
5.0	.240	.122	.035	.235	.121	.035	.227	.118	.035	.219	.116	.034	.212	.113	.034	
6.0	.222	.111	.032	.218	.110	.032	.210	.108	.031	.203	.106	.031	.197	.103	.031	
7.0	.206	.102	.029	.202	.101	.029	.195	.099	.028	.189	.097	.028	.183	.095	.028	
8.0	.191	.094	.026	.188	.093	.026	.182	.091	.026	.177	.090	.026	.171	.088	.026	
9.0	.179	.087	.024	.176	.086	.024	.171	.084	.024	.166	.083	.024	.161	.082	.024	
10.0	.168	.081	.022	.165	.080	.022	.161	.079	.022	.156	.077	.022	.152	.076	.022	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.184	.158	.135	.157	.136	.116	.107	.093	.080	.062	.054	.047	.020	.017	.015	
2.0	.176	.134	.098	.151	.115	.085	.104	.080	.059	.060	.046	.035	.019	.015	.011	
3.0	.169	.116	.074	.145	.100	.064	.100	.070	.045	.057	.041	.027	.018	.013	.009	
4.0	.162	.103	.059	.139	.089	.051	.095	.062	.036	.055	.036	.021	.018	.012	.007	
5.0	.154	.093	.048	.132	.080	.042	.091	.056	.029	.053	.033	.017	.017	.011	.006	
6.0	.147	.085	.040	.126	.073	.035	.087	.051	.025	.051	.030	.015	.016	.010	.005	
7.0	.140	.078	.034	.120	.067	.030	.083	.047	.021	.048	.028	.013	.016	.009	.004	
8.0	.133	.072	.030	.115	.063	.026	.079	.044	.019	.046	.026	.011	.015	.008	.004	
9.0	.127	.067	.027	.110	.058	.023	.076	.041	.016	.044	.024	.010	.014	.008	.003	
10.0	.121	.063	.024	.105	.055	.021	.073	.038	.015	.042	.023	.009	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm										
NAME: CB-RGBW			TYPE: LED Strip			WEIGHT:				
SPEC.: 19W			DIM.: 1000*12*2(MM)			SERIAL No.: 001				
MFR.: Flexfire LEDs, Inc.			SUR.: 0.02*1			Shielding Angle: 120				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	23.1	24.7	23.4	24.9	25.1	23.6	25.1	23.8	25.4	25.6
3H	24.8	26.2	25.1	26.5	26.7	25.6	27.1	25.9	27.3	27.6
4H	25.4	26.8	25.7	27.1	27.3	26.5	27.9	26.9	28.2	28.5
6H	25.8	27.1	26.2	27.4	27.7	27.3	28.7	27.7	28.9	29.2
8H	25.9	27.2	26.3	27.5	27.8	27.7	29.0	28.0	29.2	29.5
12H	25.9	27.2	26.3	27.5	27.8	28.0	29.2	28.3	29.5	29.8
4H 2H	23.9	25.3	24.2	25.5	25.8	24.2	25.6	24.6	25.9	26.2
3H	25.8	27.0	26.1	27.3	27.6	26.5	27.7	26.8	28.0	28.3
4H	26.5	27.6	26.9	28.0	28.3	27.5	28.6	27.9	29.0	29.3
6H	27.1	28.1	27.5	28.4	28.8	28.5	29.5	28.9	29.8	30.2
8H	27.2	28.1	27.6	28.5	28.9	28.9	29.8	29.3	30.2	30.6
12H	27.3	28.1	27.7	28.5	28.9	29.3	30.1	29.7	30.5	30.9
8H 4H	26.9	27.9	27.4	28.3	28.6	27.8	28.7	28.2	29.1	29.5
6H	27.6	28.4	28.1	28.8	29.3	28.9	29.7	29.4	30.1	30.5
8H	27.9	28.6	28.3	29.0	29.5	29.5	30.1	29.9	30.6	31.0
12H	28.0	28.6	28.5	29.1	29.6	30.0	30.6	30.5	31.0	31.5
12H 4H	27.0	27.9	27.4	28.3	28.7	27.8	28.7	28.2	29.1	29.5
6H	27.8	28.5	28.2	28.9	29.4	29.0	29.7	29.5	30.1	30.6
8H	28.1	28.7	28.5	29.1	29.6	29.6	30.2	30.1	30.6	31.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117, 354.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.6)
 Area: 0.02 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

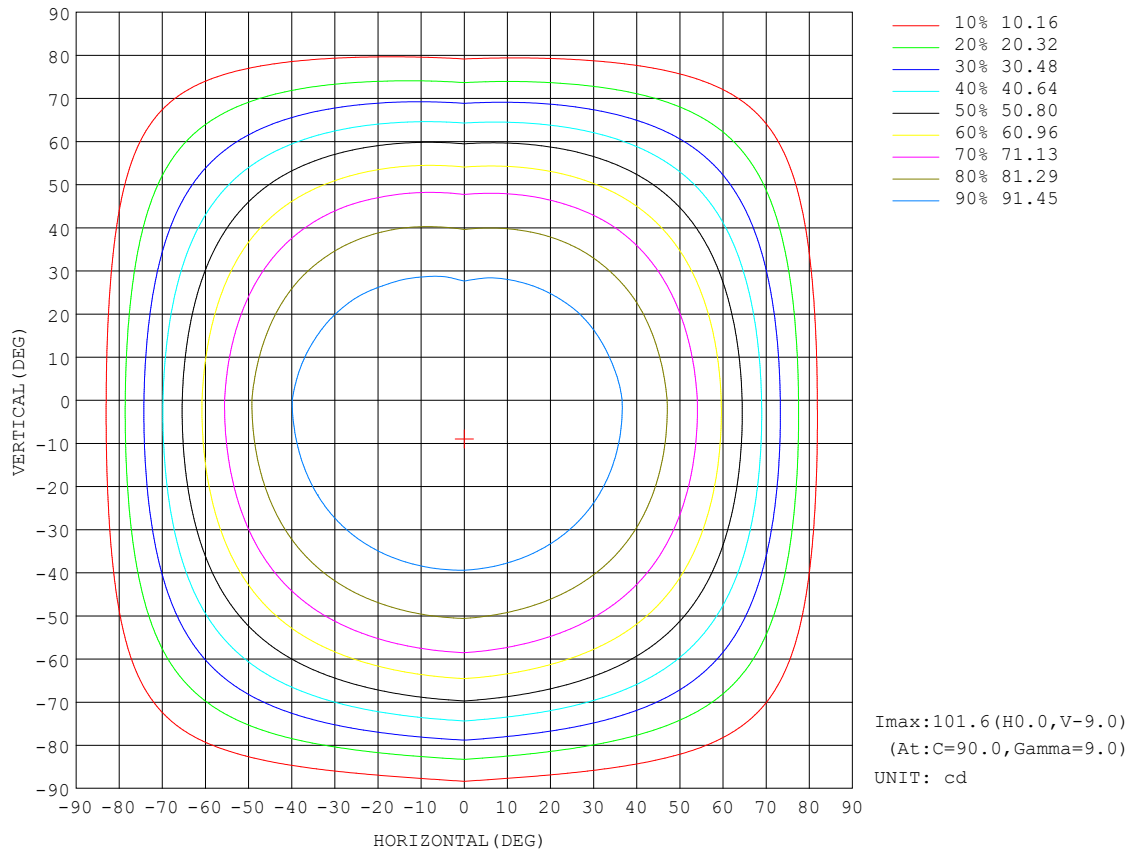
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	42	35	54	42	35	53	42	35	28
0.80	65	52	45	64	52	44	62	51	44	37
1.00	73	61	54	72	61	53	70	62	53	45
1.25	81	69	62	79	69	61	76	67	61	53
1.50	86	75	68	84	74	67	81	72	66	58
2.00	93	84	77	91	83	76	88	80	75	66
2.50	97	89	82	95	87	82	91	85	80	71
3.00	101	93	88	99	92	86	94	89	84	75
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	102	98	105	101	97	101	97	93	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

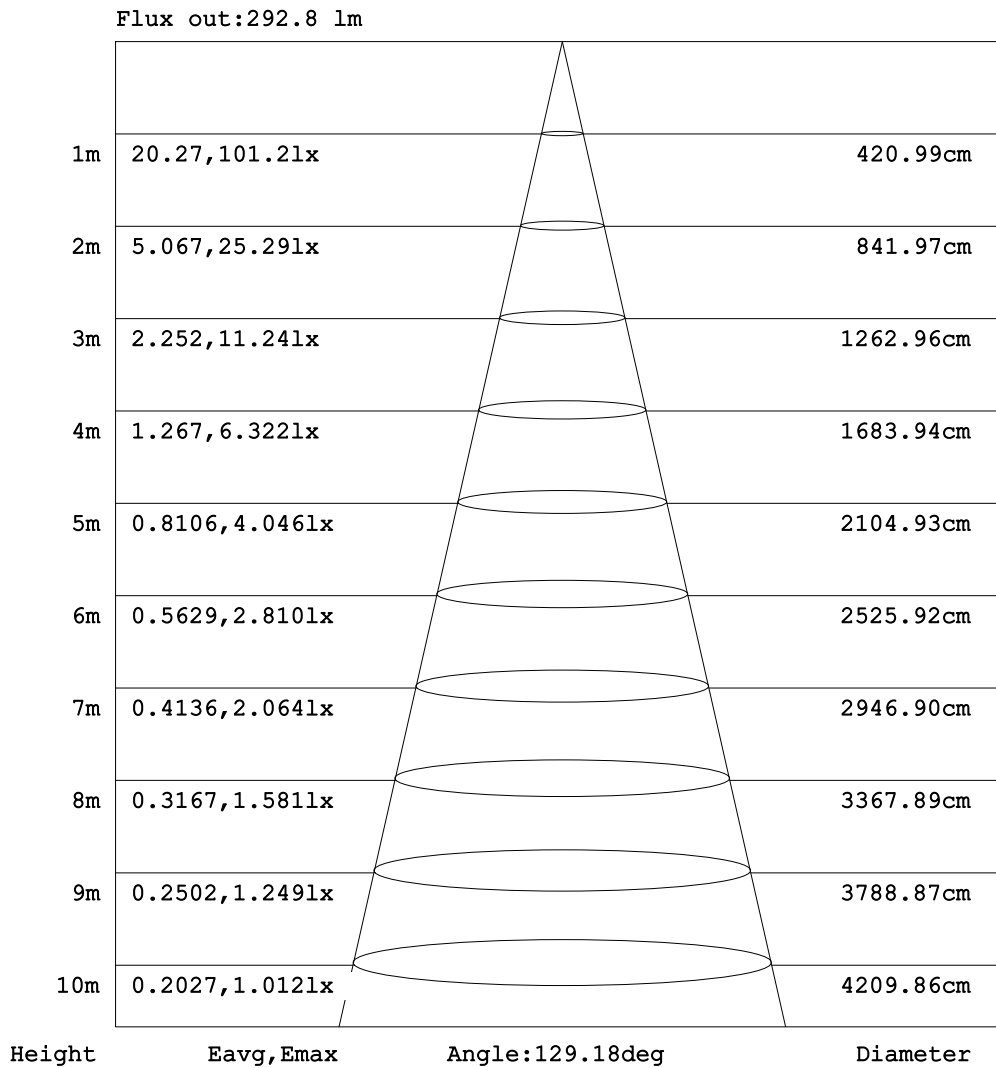


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

AAI Figure

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



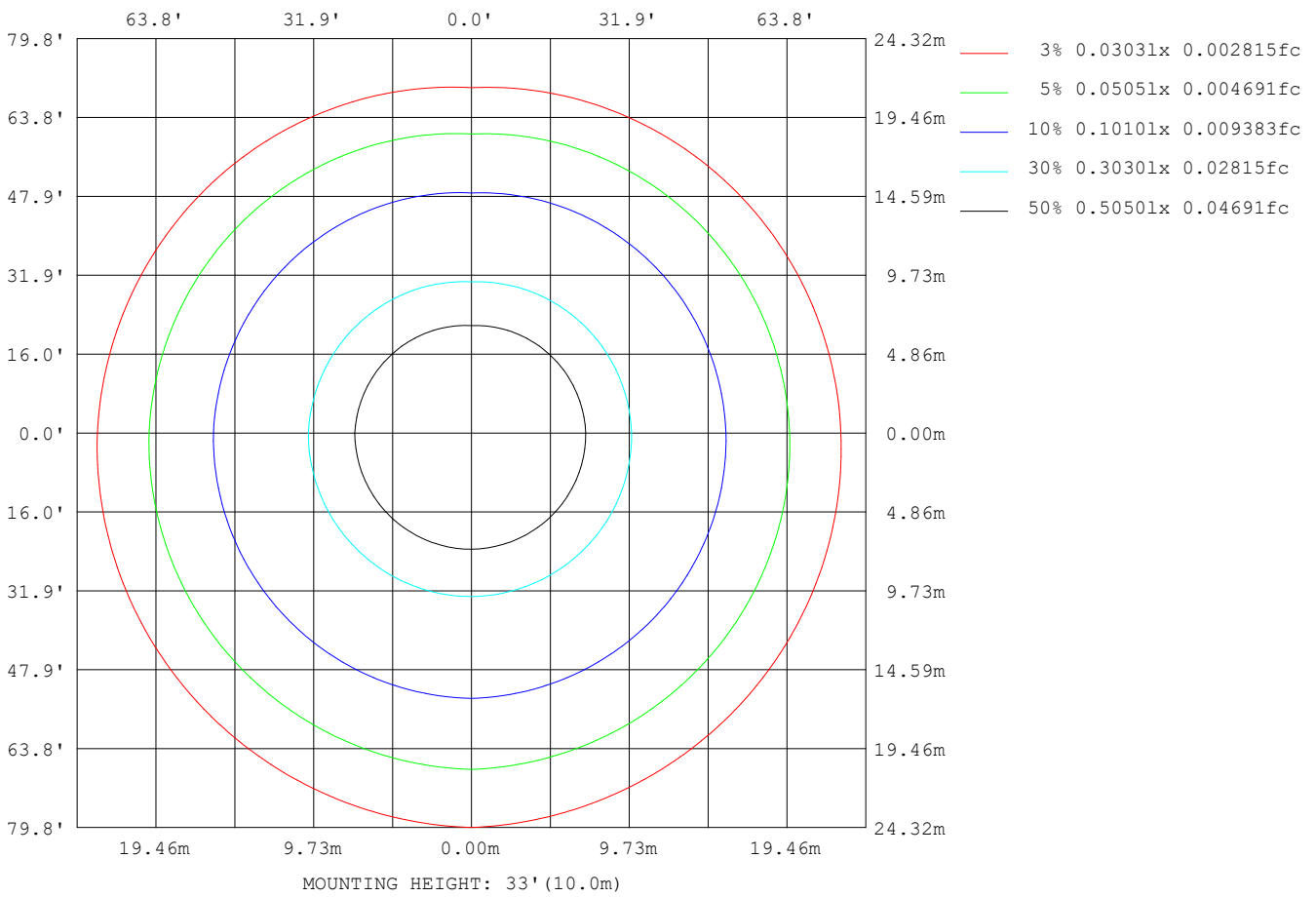
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2(MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

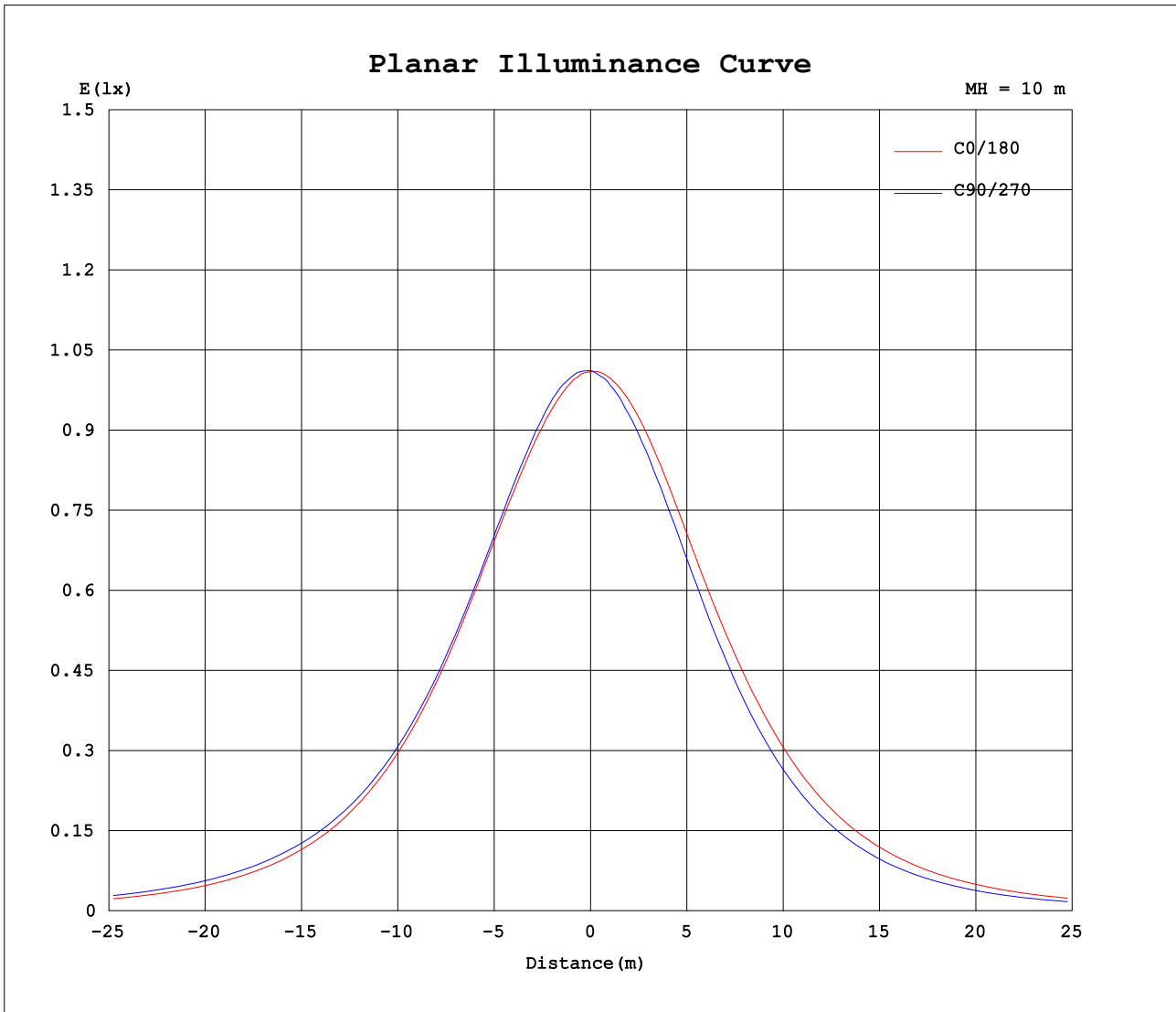
AvgL	cd/m2
L_0~180 (65) av	5988
L_0~180 (75) av	5319
L_0~180 (85) av	3162
L_90~270 (65) av	5869
L_90~270 (75) av	5494
L_90~270 (85) av	5233
L_45 (65) av	5922
L_45 (75) av	5444
L_45 (85) av	4478

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Test Date:2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity:65.0%
 Test Distance:8.820m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Test Date: 2022-09-23

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.444
 Humidity: 65.0%
 Test Distance: 8.820m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.002V I:0.1867A P:4.4812W PF:1.0000 Freq:60.00Hz Lamp Flux:354.602x1 lm		
NAME: CB-RGBW	TYPE: LED Strip	WEIGHT:
SPEC.: 19W	DIM.: 1000*12*2 (MM)	SERIAL No.: 001
MFR.: Flexfire LEDs, Inc.	SUR.: 0.02*1	Shielding Angle: 120

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	101	101	101	101															
5	101	101	101	100															
10	99.8	101	101	98.8															
15	99.2	101	101	97.4															
20	98.3	100	101	95.6															
25	97.2	98.6	99.3	93.1															
30	95.3	96.7	97.2	89.9															
35	92.5	94.1	94.7	85.9															
40	88.7	91.1	91.3	80.8															
45	83.7	87.0	86.5	74.8															
50	77.3	81.9	80.1	67.6															
55	69.5	76.0	72.2	59.3															
60	60.1	68.8	62.6	49.7															
65	49.5	60.1	51.7	39.1															
70	38.2	50.2	40.3	28.1															
75	26.3	39.3	28.8	17.6															
80	14.3	27.8	17.0	8.71															
85	4.90	16.5	6.12	1.73															
90	0.00	7.72	0.00	0.00															
95	0.00	2.96	0.00	0.00															
100	0.00	0.26	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.00	0.00	0.00															
120	0.00	0.00	0.00	0.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.00	0.00	0.00															
150	0.00	0.00	0.00	0.00															
155	0.00	0.00	0.00	0.00															
160	0.00	0.00	0.00	0.00															
165	0.00	0.00	0.00	0.00															
170	0.00	0.00	0.00	0.00															
175	0.00	0.00	0.00	0.00															
180	0.00	0.00	0.00	0.00															

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